CELERY VARIETY TRIALS - 1968

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

MUCK CROPS BRANCH, CELERYVILLE, OHIO

WALTER N. BROWN

EDWARD POSTEMA

DEPARTMENT OF HORTICULTURE

Ohio Agricultural Research and Development Center
Wooster, Ohio

Department of Horticulture Mimeograph Series No. 349
January 8, 1969

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Walter N. Brown[1] and Edward Postema[2]

Twenty varieties or strains of varieties were compared in replicated trials at two planting dates. Results of the planting for early harvest on August 26th are given in Table 1, and those of the planting for late harvest on September 9th are given in Table 2.

CULTURAL INFORMATION

Seed Sown: Early harvest - March 26, seedlings transplanted to greenhouse benches April 24, and plants set in field on May 17, 1968.
Late harvest - April 26 seedlings transplanted to greenhouse benches May 22, and plants set in field on June 18, 1968.

Fertilizer: 1000 lbs./A of 0-20-20 plowed down in early spring. Early planting sidedressed with 100 lbs./A of ammonium nitrate approximately 2 weeks and again 5 weeks after transplanting. The Late planting was sidedressed with like amounts at approximately two and five weeks after transplanting.

Spacing: Paired rows 32" apart were used with 40" between paired rows for better equipment clearance. Plants were spaced approximately 6.5" in the row with 41 plants per 23' plot, 41 plants for record. Each single row plot replicated six times in each planting.

Pesticides: Maneb at approximately weekly intervals with either Malathion, Diazinon, or Phosdrin as required.

Growing Conditions: Generally good amounts and well distributed rainfall with almost no supplemental irrigation required. Rains generally of hard beating type accompanied by high winds. Celery did not seem to grow normally in early crop. It became pithy and overmature before sizing. Temperatures were near normal for the entire growing season.

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1. Dept. of Horticulture, OARDC, 1827 Neil Avenue, Columbus, Ohio 43210
2. Muck Crops Branch, OARDC, Celeryville, Ohio 44890

Mean temperatures and rainfall during the growing period for each planting:

	Early Planting			Late Planting	
	Mean Temperature	Total Precipitation		Mean Temperature	Total Precipitation
May 17-31	54.4	4.99	June 18-31	66.8	2.15
June	67.8	3.53	July	71.1	2.82
July	71.1	2.82	August	71.1	4.23
August 1-26	73.0	4.23	September 1-9	66.0	1.32

Dates of Harvest: Early planting first three replications August 26 and last three August 28. Late planting first three replications September 9 and last three September 11, 1968.

SOURCES OF SEED

Code	Source
B1	W. Atlee Burpee Co., Box 6929, Philadelphia, Pa. 19132
B4	Buurma Bros., R 2, Willard, Ohio 44890
F1	Ferry-Morse Seed Co., Box 398, Racine, Wisc. 53401
H1	Joseph Harris Co., Inc., Moreton Farm, Rochester, N. Y. 14624
H2	The Holmes Seed Co., Box 987, Canton, Ohio 44709
L2	Letherman Seed Co., 501 McKinley Ave., N.W., Canton, Ohio 44702

TABLE 1. CELERY VARIETIES FOR EARLY HARVEST, 1968
Celeryville, Ohio

(6 Replications)

Variety, Lot Number and Source	Aver. Wt. per Large Stalk	Yield per Plot [1]			Pet. ct. 4" above Butt	Pet. Lngth Butt-1 node	Pet. Lngth Over-all	Trim Loss	Suckers [2]	Remarks
		Large Stalks	Small Stalks	Market-ables						
	lbs.	lbs.	lbs.	lbs.		in.	in.	%		
16. Florida 683 1526 S L-2	1.6	61.6	3.0	64.6	11.8	8.6	20.8	44.3	1.5	High pet. count, dark green, low axil. shoots.
2. Utah 52-70 H T-68 H-2	1.6	61.3	3.9	65.2	11.4	9.6	22.9	45.1	4.7	Typical
7. Florida 683 T-68 F-1	1.5	57.3	3.9	61.2	12.1	9.1	20.8	42.1	1.3	Very Similar to # 16
15. Utah 52-70 H 1526 S L-2	1.5	56.9	4.2	61.1	11.7	9.1	21.6	44.2	4.7	Same as # 2
12. Exp. X236 H T-68 F-1	1.5	56.9	3.6	60.5	10.2	10.4	22.3	41.1	2.5	Calif. trials exceptional to be named & released. Held except well in '68
5. Utah 52-70 T-68 H-2	1.5	55.0	4.6	60.5	11.3	9.6	22.3	45.4	4.7	Typical
19. Utah 52-70 577 H-1	1.4	53.6	3.8	57.4	10.7	10.4	22.9	48.3	5.0	Same as # 5
6 Florida 2-13 52-70-F-3 B-4	1.5	52.5	4.6	57.1	9.5	9.6	22.6	47.8	2.7	Petioles sl. more fleshy than Utah 52-70
3 Florida 683 T-68 H-2	1.4	52.4	4.0	56.4	11.5	8.9	20.8	46.2	1.7	Very similar to # 16
11. Exp. X136 T-68 F-1	1.5	51.8	2.9	54.7	12.0	8.9	20.3	40.5	1.3	Said to be outstanding in Fla. Will be released
LSD @ 5% Level		9.2		8.0						

1. Yield per plot of 23 feet. To convert to 60 lb. crates/A, multiply by 9.71
2. Internal suckers rated 1 = few to 5 = many.

TABLE 1. CELERY VARIETIES FOR EARLY HARVEST, 1968
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Variety, Lot Number and Source	Aver. Wt. per Large Stalk	Yield per Plot [1]			Pet. ct. 4" above Butt	Pet. Lngth Butt-1 node	Pet. Lngth. Over-all	Trim Loss	Suckers [2]	Remarks
		Large Stalks	Small Stalks	Market-ables						
	lbs.	lbs.	lbs.	lbs.		in.	in.	%		
17. Florida 2-13 578 H-1	1.3	50.3	3.8	54.1	10.1	9.1	21.3	49.3	3.0	Very similar to # 6
4. Florida 2-13 T-68 H-2	1.4	48.5	4.2	52.7	10.0	9.6	21.8	49.2	3.0	Very similar to # 6
13. Exp. X303 T-68 F-1	1.5	45.3	5.9	51.2	9.7	10.2	20.6	47.8	3.0	Reported outstanding in Mich.
1. Utah 52-75 T-68 H-2	1.3	40.8	5.2	46.0	8.6	8.6	18.8	49.8	2.0	Typical
18. Emerald T-68 H-2	1.2	40.2	5.3	45.5	11.0	9.4	18.5	54.2	3.7	Typical
8. Exp. 3099 T-68 F-1	1.2	40.0	7.6	47.6	11.1	11.4	21.6	50.0	3.7	Long stalks (butt to 1st.)
14. XP 152 PC 671 L-2	1.2	38.7	7.7	46.4	10.1	11.2	21.8	51.2	4.7	Long stalks (butt to 1st.)
20. Summer Pascal 579 H-1	1.2	37.7	4.7	42.4	8.6	8.6	18.3	50.1	3.3	Typical
10. Exp. 9638 T-68 F-1	1.3	37.4	7.9	45.3	9.7	10.9	21.6	53.4	4.3	Said to be outstanding in Fla. Overmature
9. Exp. 15C-4 T-68 F-1	1.2	35.5	8.4	43.9	10.8	10.4	22.7	50.9	3.0	Fla. 683 type probably early and overmature.
LSD @ 5% Level		9.2		8.0						

1. Yield per plot of 23 feet. To convert to 60 lb. crates/A, multiply by 9.71
2. Internal suckers rated 1 = few to 5 = many.

TABLE 2. CELERY VARIETIES FOR LATE HARVEST, 1968
Celeryville, Ohio

(6 Replications)

Variety, Lot Number and Source	Aver. Wt.per Large Stalk	Yield per Plot[1]			Pet. ct. 4" above Butt	Pet. Lngth Butt-1 node	Pet. Lngth. Over-all	Trim Loss	Suckers[2]	Remarks
		Large Stalks	Small Stalks	Market-ables						
	lbs.	lbs.	lbs.	lbs.		in.	in.	%		
16. Florida 683 1526 S L-2	1.7	60.7	0.9	61.6	10.4	8.4	19.4	36.8	1.7	High petiole count, dark green few axil. shoots
3. Florida 683 T-68 H-2	1.6	59.4	0.7	60.1	9.2	8.5	18.8	37.1	1.3	Similar to # 16
7. Florida 683 T-68 F-1	1.7	56.7	2.2	58.9	9.4	8.8	19.4	39.4	2.7	Similar to # 16
2. Utah 52-70 H T-68 H-2	1.5	54.9	1.7	56.6	8.9	9.3	21.1	39.7	2.3	Typical
12. Exp. X 236 H T-68 F-1	1.7	54.6	1.7	56.3	8.6	9.7	21.0	43.3	2.0	Exceptional in Calif. trials to be named & released. Held exceptionally well in '68
4. Florida 2-13 T-68 H-2	1.6	52.6	2.5	55.1	8.7	8.7	19.3	41.3	2.3	Generally darker green & sl. more flesh than Utah 52-70
19. Utah 52-70 577 H-1	1.6	52.2	1.8	54.0	10.1	9.2	20.4	42.3	5.0	Typical
15. Utah 52-70 H 1526 S L-2	1.4	52.1	2.3	54.4	9.4	9.1	20.0	41.9	4.0	Similar to # 2
17. Florida 2-13 578 H-1	1.4	51.6	2.1	53.7	8.5	9.1	19.9	43.4	3.0	Similar to # 4
5. Utah 52-70 T-68 H-2	1.4	50.7	2.0	52.7	9.0	9.1	20.4	44.1	3.3	Typical

1. Yield per plot of 23 feet. To convert to 60 lb. crates/A, multiply by 9.71
2. Internal suckers rated 1 = few to 5 = many.

TABLE 2. CELERY VARIETIES FOR LATE HARVEST, 1968
Celeryville, Ohio

(6 Replications)

Variety, Lot Number and Source	Aver. Wt.per Large Stalk	Yield per Plot[1]			Pet. ct. 4" above Butt	Pet. Lngth Butt 1 node	Pet. Lngth. Over-all	Trim Loss	Suckers[2]	Remarks
		Large Stalks	Small Stalks	Market-ables						
	lbs.	lbs.	lbs.	lbs.		in.	in.	%		
9. Exp. 15C-4 T-68 F-1	1.7	47.1	3.8	50.9	8.9	9.2	19.9	42.3	3.7	Fla. 683 type, but greater trim loss, longer petiole
6. Florida 2-13 52-70-F 3 B-4	1.5	45.8	2.2	48.0	8.0	8.5	19.0	41.5	2.3	Similar to # 4
13. Exp. X 303 T-68 F-1	1.3	44.0	3.6	47.6	8.7	9.2	18.0	44.6	3.0	Reported outstanding in Mich. moderate suckers
8. Exp. 3099 T-68 F-1	1.3	42.5	3.3	45.8	8.6	11.8	19.7	46.1	3.7	Largest petioles butt to 1st. in trials both early and late
18. Emerald T-68 H-2	1.2	40.8	2.0	42.8	10.2	8.9	16.8	46.6	3.7	Typical
10. Exp. 9638 T-68 F-1	1.2	40.5	2.4	42.9	8.4	10.7	18.1	49.2	3.7	Many suckers, high % discarded in field due to disease
14. XP 152 T-68 F-1	1.3	39.6	5.6	45.2	8.4	9.9	19.5	50.0	4.3	Long petioles, 3rd. in rank
11. Exp. X 136 T-68 F-1	1.1	39.5	1.2	40.7	10.5	8.0	18.0	41.6	1.7	Said to be outstanding in Fla. will be released.
1. Utah 52-75 T-68 H-2	1.0	34.6	4.3	38.9	6.7	8.3	16.5	47.7	1.3	Typical
20. Summer Pascal 579 H-1	1.0	31.9	3.4	35.3	6.1	7.2	15.0	51.5	3.3	Typical

1. Yield per plot of 23 feet. To convert to 60 lb. crates/A, multiply by 9.71
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